ABSTRACT OF THE DISCLOSURE

Methods for metal etching substrates in IC manufacturing, and methods for cleaning processing chamber and substrates are disclosed herein. The disclosed methods reduce the frequency of conventional wetcleaning processes that must be periodically conducted to clean etchant residues accumulated on the walls of the processing chamber. In an exemplified embodiment, the subject methods utilize an oxygen-containing gas during the dechuck process which reacts with, softens, burns and/or removes etchant residue present on the chamber walls and substrate.